### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-007707 Address: 333 Burma Road **Date Inspected:** 08-Jul-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Wu Zhi Cheng **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A Weld Procedures Followed: N/A **Electrode to specification:** Yes No Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG** Segments

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

**OBG Trial Assembly Yard** 

Segment 1AW

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as CA106-007. The welder is identified as #037840 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-Repair-1.

Plate Yard

This QA Inspector selected eleven (11) 460mm x 355mm plate check samples and assigned a QA Lot number to each of following sampled material:

Item 666: 50mm A709SL-GR345, HT# 7301297N, Lot# B222-049-09 Item 667: 50mm A709SL-GR485, HT# 08201798N1, Lot# B222-047-09



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Item 668: 50mm A709SL-GR485, HT# 08201798N1, Lot# B222-048-09

Item 669: 16mm A709SL-GR345, HT# 7202167N, Lot# B222-055-09

Item 670: 30mm A709SM-GR345F2-X, HT# 09102777, Lot# B222-052-09

Item 671: 25mm A709SM-GR345F2-X, HT# 09102778, Lot# B222-050-09

Item 672: 25mm A709SM-GR345F2-X, HT# 09102779, Lot# B222-053-09

Item 673: 30mm A709SM-GR345F2-X, HT# 09202903, Lot# B222-054-09

Item 674: 20mm A709SM-GR345F2-S, HT# 09202907, Lot# B222-051-09

Item 675: 25mm A709SM-GR345F2-X, HT# 09202913, Lot# B222-056-09

Item 676: 20mm A709SM-GR345F2-X, HT# 09102076N1, Lot# B222-046-09

Samples were marked with Lot number, date and direction of rolling and will be shipped to an Independent Testing lab.

This QA Inspector performed Ultrasonic Testing (UT) and Magnetic Particle Testing (MT) of approximately 10% of areas previously tested and accepted by ZPMC QC personnel. The weld numbers are identified as:

Lift 4E

UT:

OBE4B-017, 001, 023, 024

MT:

OBE4B-017, 023, 024

Lift 4W

MT:

OBE4B-029, 006

ZPMC Quality Control (QC) Inspector is identified as Liu Wei. QA Inspector observed QC Inspectors verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

#### **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Hernandez, Dan	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer